

Two new species of *Phylloteles* Loew from Namibia (Diptera: Sarcophagidae)

by

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Phylloteles brunnipennis sp. nov. and *Phylloteles picifrons* sp. nov. are described from Namibia. Both species possess a large fumose spot on the wings.

The genus *Phylloteles* Loew, 1844 is represented by three described species in the Palaearctic region (Zumpt 1973; Rohdendorf 1975-1982) and six in the Afrotropical region (Zumpt 1952, 1961, 1973, 1976). Male wings of the former three are very similarly spotted while the six Afrotropical species have hyaline wings. The two *Phylloteles* species described below have wings which are distinctly marked in a pattern which clearly distinguishes them from the Palaearctic species. The type material of both species is located at the State Museum, Windhoek (SMUW) and Zoological Museum, Copenhagen (ZMUC) as indicated in the text.

Phylloteles brunnipennis sp. nov., Figs 1-3

Male. Eyes covered with pale hairs, inner facets enlarged. Frons almost parallel-sided, at vertex measuring about $0.3 \times$ head width. Frontal vitta at apex of ocellar triangle $2.5 \times$ as broad as one parafrontalium, narrowing towards lunula, width at vertex $3 \times$ width at lunula. Parafrontalia with a few scattered hairs, silvery white pollinose. Parafrontalia and frontal vitta silvery white pollinose with a golden yellow tinge. Frontal vitta slightly darker than parafrontalia, at vertex almost yellow, beset with yellowish hairs. Parafrontal setae well developed, 8 or 9 pairs, the second pair from the lunula stronger than the adjacent pairs. Three pairs of proclinate and one pair of reclinate orbital setae. Ocellar setae diverging laterally, slightly stronger than the postocellars. Inner vertical setae subparallel, outer vertical setae $0.75 \times$ the lengths of the inner pair. First two antennal segments light brown; the third segment $1.25-2 \times$ as long as the second, greyish brown. First two arisal segments and the basal part of the third are light brown, the broadened part of the third arisal segment is yellowish white, distally tapering into a hairlike appendage. Dilated part of arista distinctly narrower than third antennal segment. Vibrissae well developed, with a single hair above. Genae black with a slight grey pollinosity and some brown hairs, genal height about $0.13 \times$ eye height. Palpi brown, somewhat lighter apically. Thorax black with a grey pollinosity which leaves free three longitudinal stripes. Chaetotaxy: acr = $2-3 + 3-4$, dc = $3 + 3$, ia = $0-1$ (weak) + $2-3$, sa = $1 + 2-3$, h = 2, ph = 1, sc = $3:1$. Katepisternal (sternopleural) bristles $2:1$, a few brown hairs on the notopleura in addition to the usual two bristles.

Wings with a fumose area more or less defined by the radial and medial cells (Fig. 1). Basicosta and proximal part of costa yellowish white, veins otherwise brown. Costal spine indistinct. Bend of vein M with a right angle, cell R_{4+5} narrowly open. Lower calypteres broad, white.

Legs black, femora grey dusted. Fore tibia with 1 pv bristle (holotype in addition with 4 very short ad bristles). Mid tibia with 1 v bristle, 1 ad, and 3 pd of which the middle one is situated close to and somewhat above the distal. Hind tibia with 1 av, and unequal row of ad, and 2 pd. Claws and pulvilli short, claws of fore tarsi $0,75 \times$ the length of fifth tarsomere.

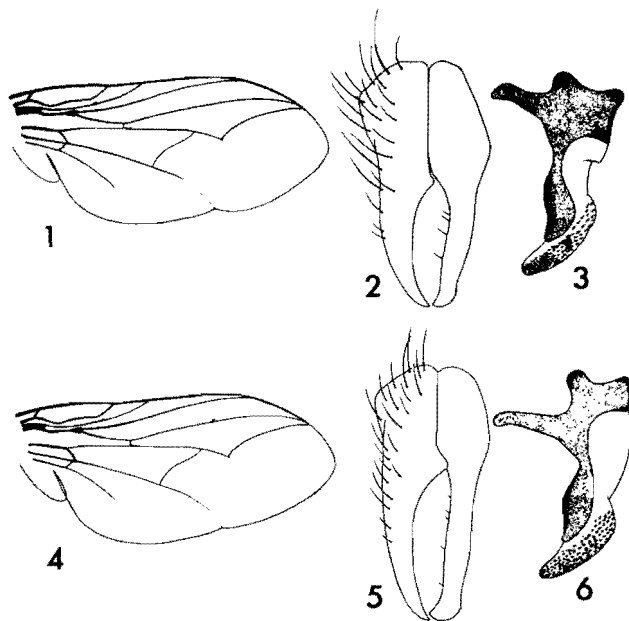
Abdomen black with silvery grey pollinosity, tergite I+II almost black, tergites III–V with three distinct undusted black spots when seen from above, an additional spot is visible in lateral view. Hind margin of tergites IV–V with a row of somewhat stronger bristles. Hypogygium undusted, shining, dark brown to black. Phallus, cerci, and surstyle as in Figs. 2–3.

Length: Holotype 5,1 mm, paratypes 4,4–5,3 mm.

Female. Unknown.

MATERIAL EXAMINED. ♂ Holotype, NAMIBIA: Keetmanshoop, Samehaling, 22.iv.1972 (SMUW).

Paratypes: Namibia: Warabad, Blinkoog, 14–17.x.1971, 2♂♂ (SMUW); Keetmanshoop, Swartbaas West, 19–22.iv.1972, 2♂♂ (SMUW and ZMUC).



Figs 1–6. *Phylloteles* spp. ♂ 1–3. *Phylloteles brunnipennis* sp. nov. – 1. Right wing. – 2. Cerci and surstyli, lateral view. – 3. Phallus. 4–6. *Phylloteles piciprons* sp. nov. – 4. Right wing. – 5. Cerci and surstyli, lateral view. – 6. Phallus.

***Phylloteles picifons* sp. nov., Figs 4–6**

Male. Eyes sparsely covered with pale hairs, inner facets slightly enlarged. Frons almost parallel-sided, at vertex measuring $0.3 \times$ head width. Frontal vitta at apex of ocellar triangle $2 \times$ as broad as one parafrontalium, narrowing towards lunula, width at vertex $2.5\text{--}3 \times$ width at lunula. Frontal vitta black, silvery grey pollinose. Parafrontalia and parafacialia silvery pollinose, with the exception of the undusted, black profrons. Upper part of frontal vitta with numerous black hairs, parafrontalia and parafacialia with a few black hairs. Parafrontal setae well developed, 10–12 pairs, three pairs of proclinate and one pair of reclinate orbital setae. Ocellar setae subparallel, slightly stronger than the postocellars. Vertical setae well developed, the outer pair $0.75 \times$ the length of the inner pair. Antennal segments dark brown to blackish brown, the third segment $1.7 \times$ as long as the second. Basal part of arista blackish brown, the distal enlarged part brownish yellow. Dilated part of arista almost as broad as third antennal segment. Vibrissae well developed with a single hair above. Genae black, anteriorly silvery pollinose, posteriorly more sparsely grey dusted. Genae with black hairs, genal height $0.13 \times$ eye height. Palpi dark brown to black, somewhat lighter apically.

Thorax black with silvery grey pollinosity which leaves free three ill-defined longitudinal stripes. Chaetotaxy: $acr = 3 + 3$ (or irregular), $dc = 2\text{--}3 + 3$, $ia = 1$ (weak) $+ 3$, $sa = 1 + 3$, $h = 2$, $ph = 1$, $sc = 3:1$. Katepisternal (sternopleural) bristles $2:1$, notopleurea with several black hairs in addition to the usual two bristles. Anepisternum (mesopleuron) densely haired.

Wings with a fumose area more or less defined by the radial and medial cells with the exception of the distal parts of cells R_{2+3} and R_{4+5} (Fig. 4). Basicosta and proximal part of costa and radius yellowish white, veins otherwise brown, costal spine indistinct. Bend of vein M with a right angle, cell R_{4+5} narrowly open. Lower calypters broad, white.

Legs black, femora somewhat grey dusted. Fore tibia with 1 pv bristle. Mid tibia with 1 v, 1 ad, and 3 pd bristles of which the middle one is situated closer to and somewhat above the distal. Hind tibia with 1 av, 2 pd, and a row of unequal ad. Claws and pulvilli short, claws of fore tarsi $0.75 \times$ the length of the fifth tarsomere.

Abdomen black with silvery grey pollinosity leaving free three black spots on tergites III–V when seen from above, an additional spot is visible in lateral view. Tergite I+II undusted, almost wholly black (the paratype from Koreangab Dam with two slightly dusted semicircular spots at the hind margin). Hind margin of tergites IV–V with a row of somewhat stronger bristles. Hypopygium undusted, shining black. Phallus, cerci and surstyli as in Figs 5–6.

Length: Holotype 5.9 mm, paratypes 4.2–5.3 mm.

Female. Unknown.

MATERIAL EXAMINED. ♂ Holotype, NAMIBIA: Bethanie, Barby, 2–7.x.1973 (SMUW).

Paratypes: Namibia: Data as holotype, 1 ♂ (SMUW); Windhoek, Koreangab Dam, 12.ii.1971, 1 ♂ (ZMUC).

Phylloteles brunnipennis and *P. picifons* are easily distinguished from all other known species of the genus by reference to the unbroken infuscation of the middle part of the wings (Figs. 1,4). The wings of the other Afrotropical species are hyaline, while

the Palaearctic species possess distinct apical spots quite unlike the species described here (Rohdendorf 1975-82: 231). Clearly, *P. brunnipennis* and *P. picifrons* constitute a monophyletic entity corroborated by the apomorphic wing pattern.

The structure of the phallus, cerci, and surstyli are similar for both species and very reminiscent of *P. socialis* Zumpt, 1976, but the latter possesses hyaline wings. *P. brunnipennis* and *P. picifrons* are most easily separated by comparison of the following characters:

- Profrons wholly dusted, pollinosity of parafrontalia and frontal vitta silvery white with a golden yellow tinge. Dilated part of arista distinctly narrower than third antennal segment. Notopleura with few (less than 10) hairs. Anepisternum (mesopleuron) not densely haired *brunnipennis*.
- Profrons almost undusted, black; silvery pollinosity of parafrontalia and frontal vitta without a golden yellow tinge. Dilated part of arista almost as broad as third antennal segment. Notopleura with several (more than 10) hairs. Anepisternum densely haired *picifrons*.

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REFERENCES

- ROHDENDORF, B. B. 1975-82. 64h. Sarcophaginae. In: E. Lindner (Ed.): *Die Fliegen der palaearktischen Region* 11: 177-235, Stuttgart.
- ZUMPT, F. 1952. Remarks on the classification of the Ethiopian Sarcophaginae with descriptions of new genera and species. *Proceedings of the Royal entomological Society, London (B)* 21: 1-18.
- 1961. Calliphoridae (Diptera Cyclorrhapha). Part III: Miltogramminae. *Exploration Parc natn Albert Miss. G. F. de Witte* 98: 1-137.
- 1973. The genus *Phylloteles* Loew (Dipt. Sarcophagidae, Miltogramminae) in Africa and Europe. *Bulletin annual de la Société royale des entomologie Belgique* 109: 308-319.
- 1976. Description of a new species of *Phylloteles* (Diptera: Sarcophagidae, Miltogramminae) from southern Africa. *Wasmann Journal of Biology* 34(1): 1-4.

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